Better Buildings Residential Network
Peer Exchange Call Series

How to Find DOE Funding for Residential Energy Efficiency

October 13, 2022

Agenda and Ground Rules

- Agenda Review and Ground Rules
- Residential Network Overview and Upcoming Call Schedule
- Opening Poll
- Featured Speakers
  - **Sam Petty**, U.S. Department of Energy
  - **Carol Rabke**, U.S. Department of Energy
  - **Elizabeth Doris**, Joint Institute for Strategic Energy Analysis
- Open Discussion
- Closing Poll and Announcements

Ground Rules:
1. **Sales of services and commercial messages are not appropriate** during Peer Exchange Calls.
2. Calls are a safe place for discussion; **please do not attribute information to individuals** on the call.

The views expressed by speakers are their own, and do not reflect those of the Dept. of Energy.

Better Buildings®
U.S. DEPARTMENT OF ENERGY

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ENERGY

Better Buildings Residential Network

Join the Network

Member Benefits:
- Recognition in media, social media and publications
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- One-on-One brainstorming conversations

Commitment:
- Members only need to provide *one number*: their organization's number of residential energy upgrades per year, or equivalent.

Upcoming Calls (2nd & 4th Thursdays):

- *10/27: 2-in-1: What Is the Potential for an Integrated Furnace & Water Heater?*

- *11/10: Electric Vehicles and Residential Energy Efficiency: Preparing for the Historical Increase*

- *12/08: The Big Heat Pump Push – How are Programs, Contractors, and the Grid Responding?*

Peer Exchange Call summaries are posted on the Better Buildings website a few weeks after the call

Sam Petty
U.S. Department of Energy

Funding Opportunity Announcements

Sam Petty

Program and Management Analyst, Building Technologies Office

10/13/2022

Funding Opportunity Announcement (FOA)

- **The Department of Energy is a granting institution and uses FOAs to solicit proposals**

- **The FOA is used to:**

  – Communicates DOE's research objectives to applicants

  – Lays out who can and can't apply

  – Describes the application materials and phases (Concept Paper, Full Application, Replies to Reviewer Comments)

  – Describes how DOE will evaluate potential projects (e.g., criteria used to score applications)

  – <u>Explains</u> what will and won't be allowed during the project, so applicants know what they are signing up for

  – Lists all application deadlines

  – Lists funding method (Grant or Cooperative agreement) and cost share requirements

2

Where do I find a FOA

- **Grants.Gov**
  - Listing of all government Grants
- **Funding Opportunity Exchange**
  - ie-exchange.energy.gov
  - ARPA-e-foa.energy.gov
  - EERE-exchange.energy.gov
- **DOE Office Websites, Blogs, and Newsletters**
  - https://www.energy.gov/eere/buildings/building-technologies-office
- **Federal Register**

3

Systems to be registered in

- **EERE Funding Opportunity Exchange**

- **Login.gov**

- **System of Award Management (SAM)**
  - **DUNS to Unique Entity ID (UEI) Transition**
    - Register for your UEI in SAM

- **Grants.gov**

- **FedConnect**

4

FOA Phases

Notice of Intent (NOI) → Letter of Intent (LOI) → Concept Paper → Full Application

Review Stage → Selections → Negotiations → Active Project → Closeouts

5

NOI

- **Notice of intent**
  - Published on Exchange Separately from the FOA
  - Used to let stakeholders know that DOE intends to publish a FOA
  - Will give some insight into the topics potentially covered
  - Teaming List
- **Letter of Intent**
  - It should not contain any proprietary or sensitive business information.
  - This requirement will be detailed in the FOA and may contain information like:
    - organization type
    - the project team
    - short 200-word project description.

6

Concept papers

- **Short Application format for quick evaluation**
- **The requirements for the concept paper are described in the FOA.**
  – Two or Three page "Mini-Application"
  – Brief project and team description
- **After review by DOE, applicants are notified if they are "encouraged" or "discouraged" to submit a full application**
  – Applicants can still submit if they receive a discourage

7

Full Applications

- Technical Volume
- Application for Federal Assistance (SF-424)
- Statement of Project Objectives (SOPO)
- Budget Justification (EERE 335)
- Disclosure of Lobbying Activities (SF-LLL)
- One-page Summary
- Summary Slide

8

Review Process and Selections

- **Merit Review Process**
  - The merit review process includes a review of eligibility and a thorough technical review independent experts in the subject matter of the funding opportunity.
  - Merit Review Criteria is listed in the FOA.
- **The selection official considers the reviewers' recommendations, program policy factors as described in the published FOA, and the amount of funds available when selecting applications for negotiation of an award.**

9

Negotiations/Project Period of Performance/Closeout

- **After notification of award Selection**

- **Negotiations**
  - Finalize required award documents
  - Creation of the terms &conditions of the awards

- **Period of Performance**
  - Active Project
  - Reporting, Deliverables, performance review meetings

10

Carol Rabke
U.S. Department of Energy

Utilizing DOE Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Funding for Residential/Multi-Family Energy Efficiency

Carol Rabke, Ph.D.
Tech to Market (T2M) Advisor - Partnering
carol.rabke@science.doe.gov

October 13, 2022
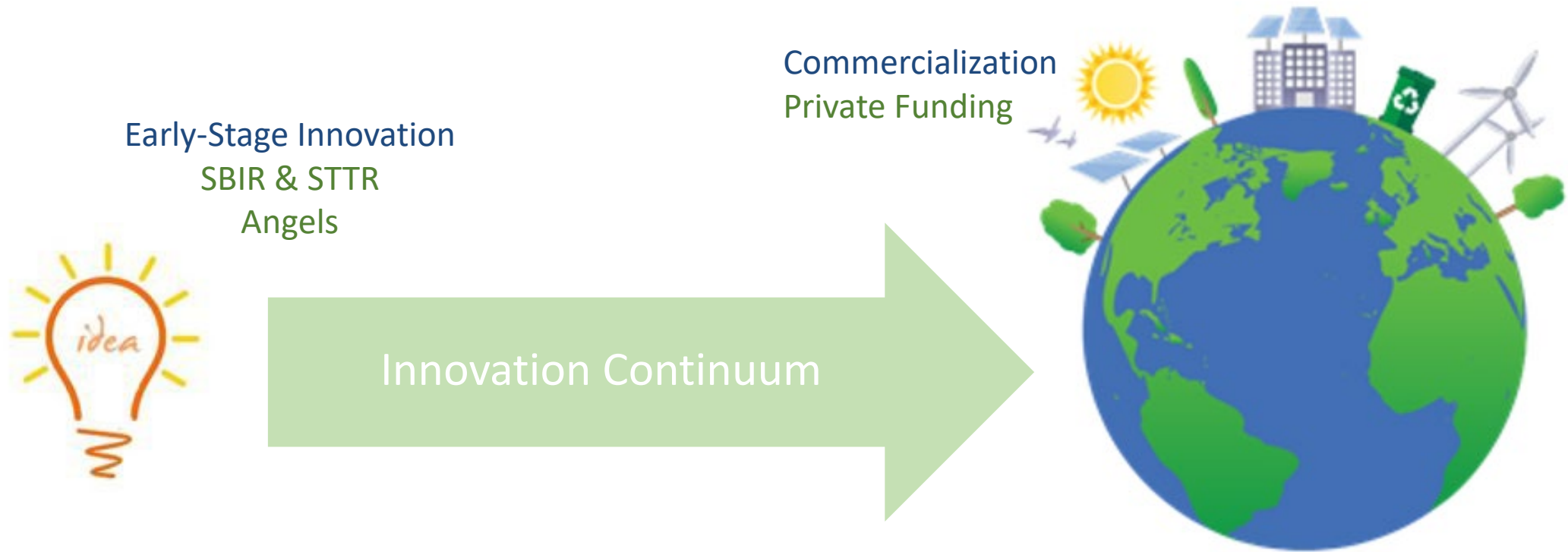
Ways to Work with DOE SBIR/STTR Programs Office

- Utilize DOE SBIR/STTR funding to develop new, innovative technology
    - *Must be U.S. small business*
    - *Must use the funding for R&D*

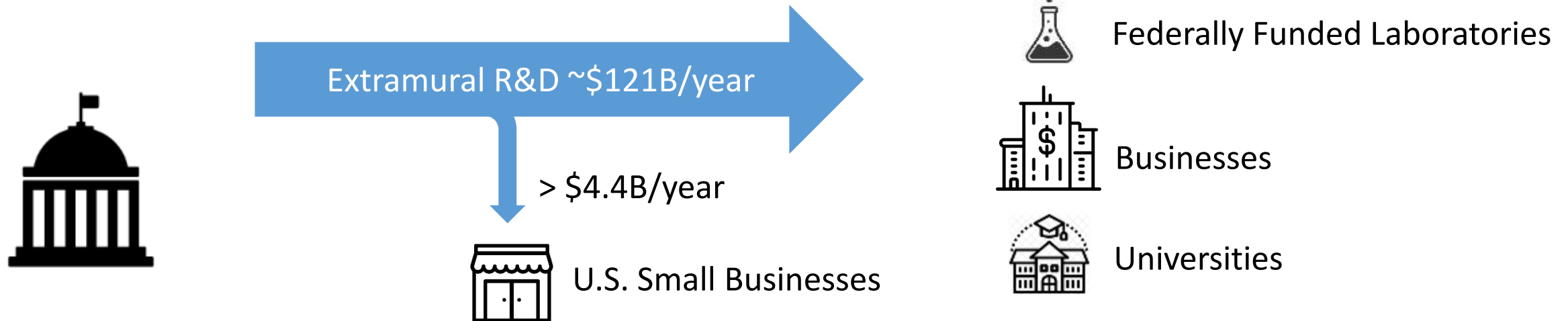- Partner with a DOE SBIR/STTR funded small business to access new, innovative technology

SBIR/STTR Basics

SBIR = Small Business Innovation Research
STTR = Small Business Technology Transfer

3

SBIR and STTR funding provides *early-stage, nondilutive R&D funding* for *U.S. small businesses* developing *high-risk innovations*

Early-Stage Innovation
SBIR & STTR
Angels

Commercialization
Private Funding

Innovation Continuum

Program Goals

Extramural R&D ~$121B/year

> $4.4B/year

U.S. Small Businesses

Federally Funded Laboratories

Businesses

Universities

- Meet federal **research and development needs**
- Increase **private-sector commercialization** of innovation derived from federal research and development funding
- Stimulate **technological innovation**
- **Foster and encourage participation** in innovation and entrepreneurship by women and socially/economically disadvantaged individuals
- Foster **technology transfer** through cooperative R&D between small businesses and research institutions (STTR)

Small Business Innovation Research (SBIR)

- 3.2% of the extramural research budget for agencies with an annual budget >$100M
- ~$3.9B minimum spend each year
- 11 agencies

Small Business Technology Transfer (STTR)

- 0.45% of the extramural research budget for agencies with an annual budget >$1B
- ~$510M minimum spend each year
- 6 agencies (USDA is new in FY22)

Over 7,000 new awards annually!

AGENCIES WITH SBIR & STTR PROGRAMS	APPROX BUDGET
Department of Defense (DOD)	$ 2.24 B
Department of Health and Human Services (HHS), including the National Institutes of Health (NIH)*	$1.25 B
Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)	$348 M
National Science Foundation (NSF)	$ 231 M
National Aeronautics and Space Administration (NASA)	$215 M
Department of Agriculture (USDA)	$38 M
AGENCIES WITH ONLY SBIR PROGRAMS	**APPROX BUDGET**
Department of Homeland Security (DHS): Science and Technology Directorate (S&T) & Countering Weapons of Mass Destruction Office (CWMD)	$20 M
Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) & National Institute of Standards and Technology (NIST)	$12M
Department of Transportation (DOT)	$12 M
Department of Education (ED)	$11 M
Environmental Protection Agency (EPA)	$4 M

Three Phase Process

PHASE I: FEASIBILITY, PROOF OF CONCEPT
- Award Amount: $200,000 (typical), $275,000 (max.)
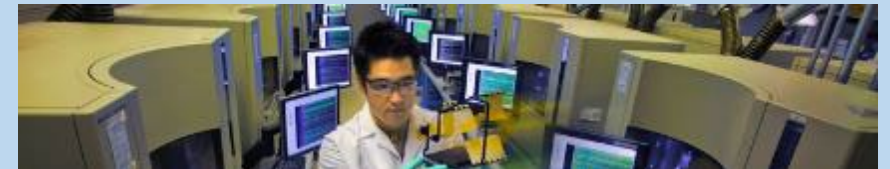- Project Duration: 6-12 months

PHASE II: PROTOTYPES OR PROCESSES R&D
- Award Amount: $1,100,000 (typical), $1,800,000 (max.)
- Project Duration: 2 years

PHASE III: COMMERCIALIZATION
- Federal or Private Funding (non-SBIR/STTR funds)
- No dollar or time limits

DOE SBIR/STTR Specifics

- Awards in excess of **$300M annually** (~400 Phase Is; ~260 Phase IIs)
- Award is a **GRANT** not a CONTRACT
- Thirteen DOE program offices participate; topics aligned with DOE Mission:
  - ○ *Leadership in Clean Energy*
  - ○ *Leadership in Basic Energy and Engineering Sciences*
  - ○ *Enhancement of Nuclear Security*
- Two Phase I solicitations per year (July and **November**)
  - ○ *Letter of Intent is required*

Cyber Security, Energy Security & Emergency Response
Electricity
Energy Efficiency & Renewable Energy
Fossil Energy
Nuclear Energy
Advanced Scientific Computing Research
Basic Energy Sciences
Biological & Environmental Research
Fusion Energy Sciences
High Energy Physics
Nuclear Physics
Defense Nuclear Nonproliferation
Environmental Management

U.S. DEPARTMENT OF ENERGY

Office of SBIR/STTR Programs

Participating DOE Program Offices – 2 Releases

Advanced Scientific Computing Research (ASCR)	Cybersecurity, Energy Security & Emergency Response (CESER)	Nuclear Nonproliferation (NNSA)	Fusion Energy Sciences (FES)
Basic Energy Sciences (BES)	Energy Efficiency & Renewable Energy (EERE) ⭐	Nuclear Energy (NE)	Electricity (OE) ⭐
			High Energy Physics (HEP)
Biological & Environmental Research (BER)	Nuclear Physics (NP)	Fossil Energy & Carbon Management (FECM)	Environmental Management (EM)

🟦 Release 1 - June

🟩 Release 2 - November

Residential Energy Efficiency Program Offices

- **Office of Electricity**
  - *Smart grids, micro grids, energy storage*

- **Office of Energy Efficiency and Renewable Energy**
  - *Renewable power, sustainable transportation, building and manufacturing efficiencies*
    - *Building Technologies Office*
      - *Grid interactive efficient buildings*
      - *Advanced building construction*
      - *Building integrated photonics*
      - *...technologies, tools, and services that enable high-performing, energy-efficient and demand-flexible residential and commercial buildings in both new and existing buildings/homes...*

FY23 Funding Opportunity Announcements

Check back on November 7 for Phase I Release 2

Letters of Intent required (see LOI instructions) and Feedback (if non-responsive)

Application Due Date

Phase I	Release 1	Release 2
Topics Issued	Monday, July 11, 2022	Monday, November 7, 2022
Document	Release 1 Topics	
Application Assistance (free for first time applicants) starts	Monday, July 11, 2022	Monday, November 7, 2022
Topic Webinar, week of	Webinar 1: Topics 1-15 Slides Webinar 2: Topics 16-24 Slides	Monday, November 14, 2022*
FOA Issued	Monday, August 8, 2022	Monday, December 12, 2022
Document	DE-FOA-0002783	
FOA Webinar	Friday, August 12, 2022* Register	Friday, December 16, 2022*
Letters of Intent (LOI) Due	Monday, August 29, 2022 5:00pm ET	Tuesday, January 3, 2023 5:00pm ET
Non-responsive LOI Feedback Provided	Monday, September 19, 2022	Tuesday, January 24, 2023
Full Applications Due	Tuesday, October 11, 2022 11:59pm ET	Tuesday, February 21, 2023 11:59pm ET
Award Notification	Tuesday, January 03, 2023**	Monday, May 15, 2023**
Projected Grant Start Date	Monday, February 13, 2023	Monday, June 26, 2023
Awardee Webinar, week of	February 27, 2023	July 10, 2023
Energy I-Corps Kickoff	April 2023	September 2023
Principal Investigator Meeting	June 2023	October 2023
*Registration link will be posted here, one week prior to the webinars. To receive this link automatically via email, please join our Mail List.		
**Preliminary dates subject to change		

https://science.osti.gov/sbir/Funding-Opportunities

DOE SBIR/STTR Resources

Early-Stage
Innovation
SBIR & STTR

Commercialization
Private Funding

Applicant Resources

Phase 0 Application Assistance

Sequential Phase IIs

Phase I Commercialization Program

Energy I-CORPS for SBIR/STTR

TABA funds

Partnering Resources and Phase II Workshops

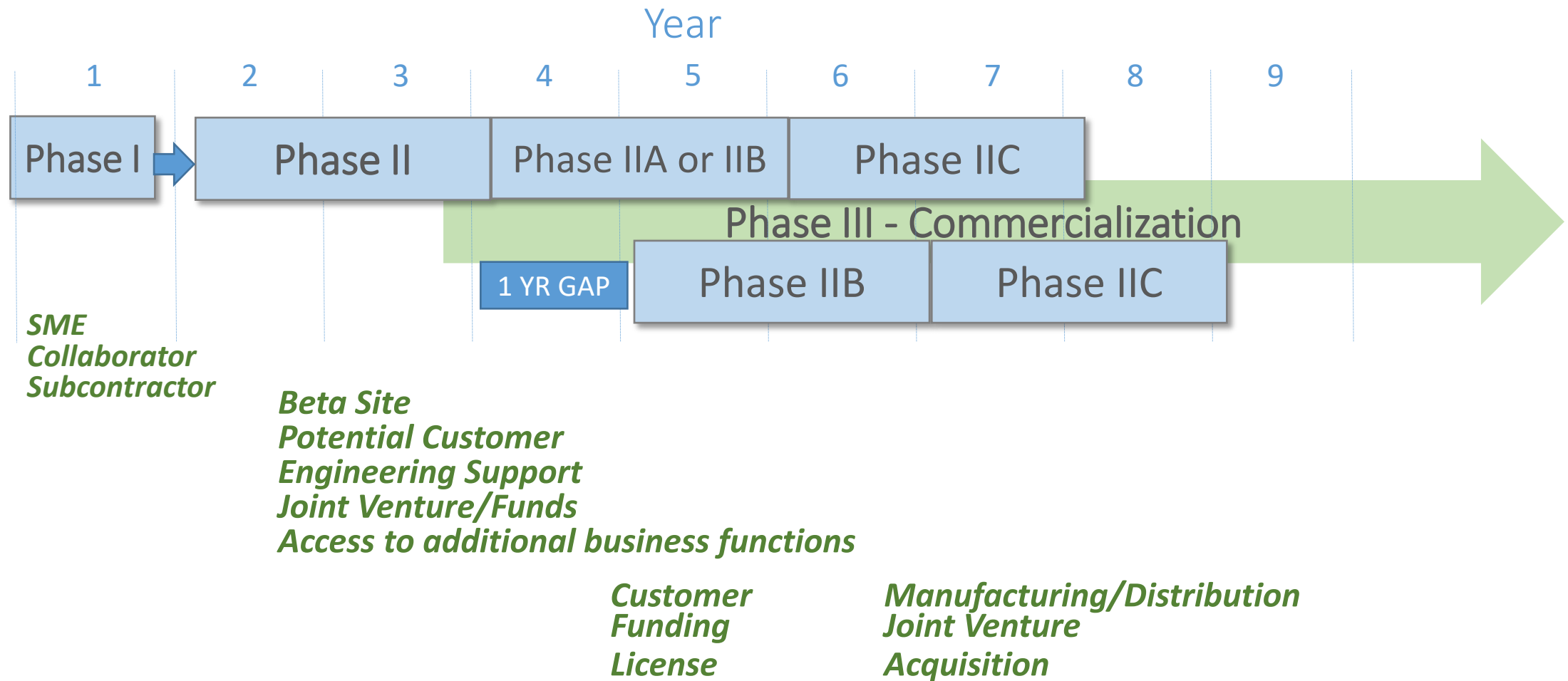Diversity Supplement for Phase II Awardees

Partner with a DOE SBIR/STTR funded Small Business

Matching Partners to Award Phases

Year

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Phase I → Phase II | Phase IIA or IIB | Phase IIC

Phase III - Commercialization

1 YR GAP | Phase IIB | Phase IIC

SME
Collaborator
Subcontractor

Beta Site
Potential Customer
Engineering Support
Joint Venture/Funds
Access to additional business functions

Customer
Funding
License

Manufacturing/Distribution
Joint Venture
Acquisition

WHY PARTNER WITH DOE PHASE II SBIR/STTR AWARDEES??

- Small business with $1M+ to continue development of technology proven feasible during Phase I (6-12 months – concept phase)

- Cutting edge, advanced technologies; many are disruptive looking to enter emerging markets
  - *Technologies that can drive net-zero and sustainability goals*
  - *Diverse awardee pool – SDB, WOSB, VOSB, SDVOSB, 8a, etc.*

- Having been through competitive award process, these are vetted technologies
  - *Phase I: ≈1000 applicants with 20% award*
  - *Phase II: ≈260 applicants with 40% award*

DOE SBIR/STTR Partnering Platform

- Public facing, searchable database of DOE Phase II SBIR/STTR awards providing **_partners with access to 1000+ vetted technologies_**; *it will also provide* SBIR/STTR applicants/awardees with a myriad of partner options – available July 2023

- If you are an established stakeholder, reach out to [me](#) with your technology needs/interests and/or participate in our Phase II Strategic Partner Introduction Sessions (Q1 2023)

- If you are a DOE SBIR/STTR awardee or a small business thinking about applying and need partnering assistance, check out the [DOE SBIR/STTR Partnering Resources Page](#).

  - *[Manufacturing Resources](#)*

  - *[Engineering Design Resources](#)*

  - *[Test/Certification Resources](#)*

Questions??

We value your feedback to help us improve the DOE SBIR/STTR Programs

Interested in understanding your individual partnering needs

carol.rabke@science.doe.gov

585.576.7981

https://science.osti.gov/sbir

Additional DOE SBIR/STTR Program Information

DOE Mission-Focused Topics

- ***Specify grant maximum*** amounts and whether ***STTR applications*** are being accepted
  - *If SBIR and STTR criteria are met, you can apply to both*
  - *2 different pots of funding*

- ***Topic Webinars (recorded)***, DOE Program Managers discuss the topic then Q&A

- ***Open communication permitted*** about the topic scope with DOE Program Managers

- ***Reading references is highly recommended*** Markets studies are sometime included.

7. EERE JOINT TOPIC: COMMUNITY-DRIVEN SOLUTIONS FOR A JUST AND EQUITABLE ENERGY TRANSITION

Maximum Phase I Award Amount: $200,000	Maximum Phase II Award Amount: $1,100,000
Accepting SBIR Phase I Applications: YES	Accepting STTR Phase I Applications: YES

Achieving an equitable economic recovery powered by clean energy that is carbon pollution free by 2035 will require the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy to leverage the expertise and talents of small businesses. To meet this ambitious goal, the Office of Energy Efficiency and Renewable Energy is soliciting applications from small businesses to develop equitable and inclusive innovative technology solutions for current and future energy challenges and needs.

Technology faces significant cultural, economic, and societal hurdles that limit responsible and accelerated deployment that meets community priorities and equitable outcomes. Actualizing a national goal of net-zero

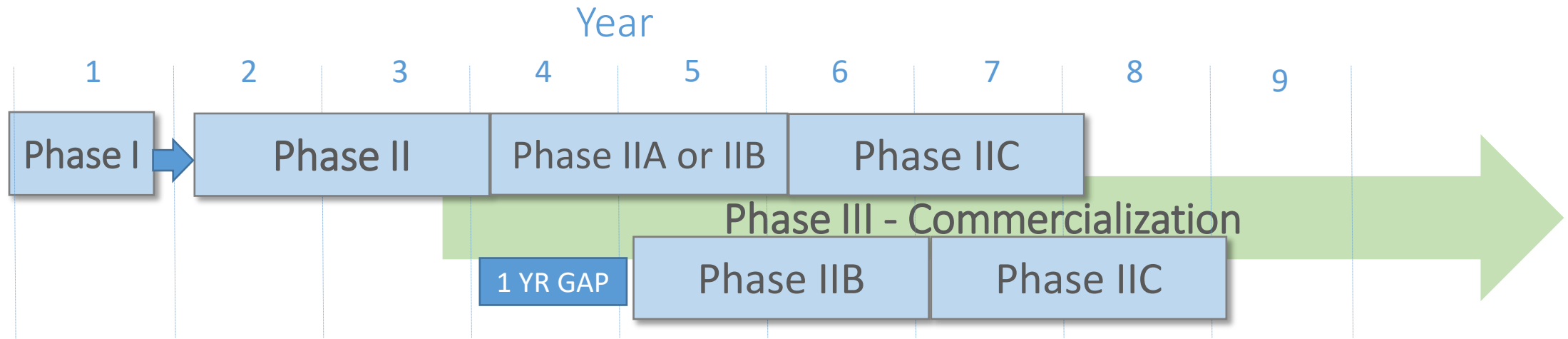Questions – Contact: Naomi O'Neil, naomi.oneil@netl.doe.gov

References: Subtopic a:
1. Güler, O., Bagcı, N., 2020, A Short Review on Mechanical Properties of Graphene Reinforced Metal Matrix Composites, *Journal of Materials Research and Technology*, January 2020, https://www.sciencedirect.com/science/article/pii/S2238785419312852 (November 8, 2021)
2. Hidalgo-Manrique, P., Lei, X.., Xu, R., et al., 2019, Copper/graphene Composites: A Review, *Journal of Material Science*, 54:12236-12289, https://link.springer.com/article/10.1007/s10853-019-03703-5 (November 8, 2021)
3. Shin, S.E., Choi, H.J., Hwang, J.Y., et al., 2015, Strengthening Behavior of Carbon/metal Nanocomposites, *Scientific Reports*, 5:16114, https://www.nature.com/articles/srep16114 (November 8, 2021)

How does DOE SBIR/STTR funding work?

Phase I	Phase II	Phase IIA/IIB	Phase IIC
• Two annual Funding Opportunity Announcements • Focused, mission-aligned topics • Feedback provided on letters of intent • $200,000/$250,000 • 6 - 12 months duration • ~ 350-400 awards per year	• Phase I awardees apply for Phase II the following year • $1,100,000/$1,600,000 • 2 years duration • ~ 160 awards per year	• For projects that require additional R&D funding to transition to commercialization • $1,100,000 • 2 years duration • ~30 awards per year	• Pilot program to leverage 1:1 matching funds for commercialization • $1,100,000 • 2 years duration

Differences between SBIR and STTR

	SBIR	STTR
Partnering Requirement	Permits partnering	Requires a non-profit research institution (RI) partner
Principal Investigator	Primary employment (>50%) must be with the small business	PI may be employed by either the RI partner or the small business
Work Requirement	May subcontract up to: 33% (Phase I) 50% (Phase II)	Minimum: 40% Small Business 30% RI Partner
Program Size	3.2%	0.45%
Majority VC ownership	Allowed by some agencies	Not allowed
Participating Agencies	11 agencies (extramural R&D budget >$100M)	6 agencies (extramural R&D budget >$1B)

DOE SBIR/STTR Resources

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Innovation
SBIR & STTR

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Phase I Commercialization Program

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TABA funds

Partnering Resources and Phase II Workshops

Diversity Supplement for Phase II Awardees

Many Places to Look for Support

Phase 0 application assistance - an expansive (*free!*) application assistance program to first time applicants.

Email us!

General questions: sbir-sttr@science.doe.gov

Get Connected!

Subscribe to our mailing list: https://science.osti.gov/sbir

Stay Connected!

Recorded Topic and FOA Webinars – Ask Us Anything Webinars

Visit https://www.sbir.gov – Check out tutorials!

Being on our mailing list is the most important way to stay up to date on our funding opportunities!

Phase 0 Application Assistance

Core Services
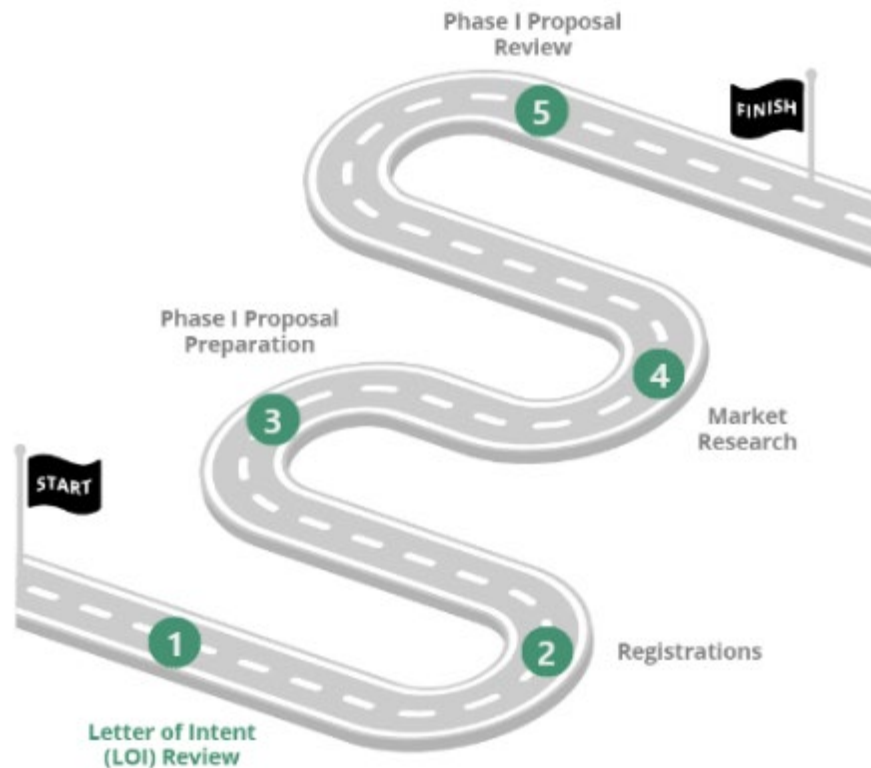
Application assistance program for first time applicants – its *free!*

Optional Services (Pick 1 or 2):

- Small business training/mentoring
- Technology Advice & Consultation
- Intellectual Rates & Financial Assistance
- Travel Assistance

http://www.dawnbreaker.com/doephase0/

Commercialization - a statutory goal but difficult

- Directorate provides ***Technical and Business Assistance (TABA)*** funds - $6.5K in Phase I and $50K in Phase II; see the [FOA](#) for specific tasks that can be covered

- DOE has a ***Phase I commercialization program*** (vendor vetted by agency) or use TABA funds with your own third-party service provider; cannot use both TABA funds and participate in program

- DOE has an abbreviated Phase I I-Corps program - ***Energy I-Corps for SBIR***

- ***Partnering Platform*** under development; visit [partnering resources](#) in interim

Phase II Awardees Programs

- ***Virtual Workshops*** focused on topics that are typical areas of weakness for SBIR/STTR companies - manufacturing, licensing, financial modeling, preparing to pitch, intellectual property strategies...

    o ***December 6th 2022 – 1PM Eastern Commercialization & The Power of Partnering Roundtable***

    o *https://www.orau.gov/SBIRPhIIWkshop*

- ***Strategic Partner Introductions*** (virtual)

- Goal is to ***improve the outcome of commercialization*** within the DOE SBIR/STTR programs

Other DOE Resources

Early-Stage Innovation
SBIR & STTR

Commercialization
Private Funding

Partnering with National Laboratories

National Labs – POCs and Core Capabilities

Technology Commercialization Fund (TCF)

Demonstration Facilities: Idaho, NREL, ORNL

Office of Clean Energy Demonstrations

Loan Programs Office

Lab-Embedded Entrepreneurship Program (LEEP)

American-Made Challenges

National Energy Research Scientific Computing Center (NERSC)

Elizabeth Doris
Joint Institute for Strategic Energy Analysis

Energy Equity and Environmental Justice @ EERE

Elizabeth Doris, Joint Institute for Strategic Energy Analysis

Better Buildings Solutions
10/13/22

"We'll create good jobs for millions of Americans...and we'll do it all to withstand the devastating effects of climate change and promote environmental justice."

PRESIDENT JOE BIDEN, 2022 STATE OF THE UNION

EERE's mission is to accelerate the research, development, demonstration, and deployment of technologies and solutions to **equitably transition** America to net-zero greenhouse gas emissions economy-wide by no later than 2050, and **ensure the clean energy economy benefits all Americans**, creating good paying jobs for the American people—**especially workers and communities impacted by the energy transition and those historically underserved by the energy system and overburdened by pollution.**

EERE Mission | Department of Energy

3

WHY ENERGY AND ENVIRONMENTAL JUSTICE AT EERE?

INEQUITABLE BENEFITS

- Black-majority census tracts installed 69% less rooftop PV than no-majority tracts of same household income
- Less than half of U.S. community solar projects include low-income households
- Since 2006, 90% of electric vehicle income credits were received by the top income quintile.

SCIENTIFIC IMPERITIVE

- Science improves with diverse teams and approaches
- Reviewers were more likely to choose similar gender and nationality characteristics in their selections
- Teams with greater ethnic diversity generate papers that get more visibility in scientific literature

- EO13985: Equity in Programming
- EO14008: Climate home and abroad (J40)

EXECUTIVE ORDERS (EO)

4

APPROACH: NEXT ITERATION OF CLEAN ENERGY TRANSCENDS TECHNOLOGY SILOS

EERE EEJ GOALS

Advance energy democracy, alleviate energy insecurity, lower energy costs, and expand access to and ownership of clean energy assets for the broadest set of Americans. Through the EERE Mission, we:

- Provide equitable research, development, demonstration, and deployment funding and project opportunities
- Increases collaborations with disadvantaged and energy transition communities, a diverse set of academic institutions, and wide range of energy system stakeholders.

Link: Equity Integrated into modernized EERE Mission

GUIDING PRINCIPLES

Programmatic Leadership
Integrate equity within congressional intent of technology programs

Central Coordination
Leverage programmatic experience through sharing and learning

Crosscutting Programming
Develop technology neutral RDD&D programs targeting the needs of hard-to-reach communities

Responsive RDD&D
Develop and deliver tech that is usable to a broader audience

Stakeholder Engagement
Establish durable channels broader relationships

Improved Funding Mechanisms
Expand funds delivery to emerging partners

Enable Measurement
Be accountable for the change

Cohesive Communications
Share the authentic story

CROSS EERE WORKING TEAMS

5

Equity Focused Actions Integrated in Program Design

Lifecycle Stakeholder Engagement

- Lifecycle stakeholder engagement provides broader input creates better science and research outcomes.
- "Stakeholders," are energy system participants
- EERE Authority for including this engagement and outreach: EPACT 2005 Section 1004 Outreach requirement
- Stakeholder engagement begins with reviewing previous inputs and includes appropriate remuneration for input.

Equity Focused Funding Mechanism Selection and Implementation

Selection:
- Program designers are expected to carefully consider and justify funding mechanism selection to meet programmatic and equity related goals.
- Program designers are expected to think through and justify structures for equity **within** funding mechanisms

Implementation:
- A clear reviewer process selected from the list of increasingly equitable processes

Content/Topic Considerations

Program designers must develop a list of potential equity focused topics and articulate the parameters by which they are selected for inclusion or not in the checklist. One way to do this is to hold an external idea generation workshop (with remuneration) or convene a stakeholder idea generation session. Types of content ideas and examples by RDD&D program type can be found here.

Equity Focused Data Collection

Measuring and tracking progress of equity allows for continued evaluation and iteration of program design
- Programs determine what and how data will be collected through the program for measurement of progress toward national equity priorities
- Programs articulate a strategy for collecting zip+4 data for all awardees and sub awardees including technical assistance recipients
- Programs articulate other approaches they are taking to ensure we can measure progress toward J40 DOE policy priorities.

Support document provides definitions, ideas, examples, and templates for each action type

Action Plan: Integrated DEI/EEJ Language into EERE FOAs

In the technical volume requirements:

The Diversity, Equity, and Inclusion Plan should contain the following information:

- Equity Impacts: the impacts of the proposed project on underserved communities, including social and environmental
- Benefits: The overall benefits of the proposed project, if funded, to underserved communities; and
- How diversity, equity, and inclusion objectives will be incorporated in the project. See Section IV.D.xvii for more information Inclusion Plan.

Referenced section above:

Diversity, Equity and Inclusion Plan

As part of the application, applicants are required to describe how diversity, equity, and inclusion objectives will be incorporated required to submit a Diversity, Equity, and Inclusion Plan that describes the actions the applicant will take to foster a welcoming and inclusive from groups underrepresented in STEM, advance equity, and encourage the inclusion of individuals from these groups in the project; and the extent project activities will be located in or benefit underserved communities (also see Section I.A.iii). The plan should include SMART milestones supported by metrics to measure the success of the proposed actions. The following is a non-exhaustive list of actions that can serve as examples of ways the proposed project could incorporate diversity, equity, and inclusion elements. These examples should not be considered either comprehensive or prescriptive. Applicants may include appropriate actions not covered by the examples. a. Include persons from groups underrepresented in STEM as PI, co-PI, and/or other senior personnel; b. Include persons from groups underrepresented researchers or post-doctoral researchers; c. Include faculty or students from Minority Serving Institutions as PI/co-PI, senior personnel applicable; d. Enhance or collaborate with existing diversity programs at your home organization and/or nearby organizations staff in Minority Serving Institutions; f. Disseminate results of research and development in Minority Serving Institutions communities; g. Implement evidence-based, diversity-focused education programs (such as implicit bias training for staff) in Enterprises, Minority Owned Businesses, Woman Owned Businesses and Veteran Owned Businesses to solicit as vendors and equipment. Save the Diversity, Equity and Inclusion Plan in a single PDF file using the following convention for the

In the Merit Criteria:

Criterion 4: Diversity, Equity, and Inclusion (10%) This criterion involves consideration of the following factors:

- The quality and manner in which the measures incorporate diversity, equity and inclusion goals in the project; and
- Extent to which the project benefits underserved communities.

100%
EERE Funding Opportunities Integrating Language Starting May 2021

$700M
Of published or selected awards including DEI plans

7

SAMPLE Approaches to DEI plans

Diversity of Project Execution Teams

- Include persons from groups underrepresented in STEM or from MSIs as PI, co-PI, and/or other senior personnel or postdoctoral researchers

- Include a diversity of disciplines on project teams: commercialization specialists, techno-societal integration specialists

- Mentoring programs with underrepresented researchers in science within the research project

Diversity of Input in Research Design

- Valued input from eventual end users of the technology integrated rigorously into project design

- Diverse disciplines and demographics in research design charettes planned into projects

Diversity in Geographic Extent of Impact

- Develop technologies that are more likely to have disproportionate benefit in disadvantaged communities: clean energy tech that enables community ownership;

- Thoughtful and responsible inclusion of disadvantaged communities in pilot programs and demonstrations (don't know how? See 'diverse project teams' above)

- Inclusion of input and outreach on efforts throughout project

8

Types of Application Additions Associated with DEI Plans

- New partnerships associated with MSIs and HBCUs
- Mentoring post-project programs for doctoral candidates and postdocs from under-represented communities
- Creative engagement techniques for getting and integrating stakeholder input to programs
- Strategic stakeholder engagement and information integration approaches
- Integrated milestones with technical narrative milestones
- Descriptions of changes to market in the event the technology innovation is successful

9

Expanded Reviewer Expertise Categories

I want to register as:

Applicant — I want to apply to current or future Funding Opportunity Announcements.

Reviewer — I am a subject matter expert and would like to be considered to review incoming funding applications.

DOE Employee — I am a federal DOE employee or contractor and will be a user of the system as a part of my job.

Areas of Expertise

Primary Area of Expertise: *	Other - Functional	Change
Additional Area(s) of Expertise:	None currently selected	Select
Functional Area(s) of Expertise:	None currently selected	Select

- ☐ Social Science
- ☐ Diversity, Equity, and Inclusion
- ☐ DEI - Technology in Society
- ☐ DEI - Diversity, Equity, and Inclusion on research teams
- ☐ DEI - Diversity, Equity, and Inclusion in research design and implementation
- ☐ DEI - Energy and Environmental Justice Community Engagement and Outreach

- Go to the EERE Funding Opportunity Exchange website.

- Under "Registration," select the "Reviewer" button.

- Under "Reviewers Registration," complete all four sections:
  - General Information--Provide your contact information, resume, and answer a few questions about your background.
  - Account Information - Create your account username and password.
  - Areas of Expertise –
    - Under Areas of Expertise, Select "Other-Functional"
    - Under "Functional Area(s) of Expertise" select one of the following areas:
  - Education and Experience

- Check the box to certify that the information provided is accurate and complete.

- Select the "Complete Reviewer Registration" button.

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- ☐ Diversity, Equity, and Inclusion
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170
New DEI/Justice Reviewers within 2 months of launch

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  - General Information--Provide your contact information, resume, and answer a few questions about your background.
  - Account Information - Create your account username and password.
  - Areas of Expertise –
    - Under Areas of Expertise, Select "Other-Functional"
    - Under "Functional Area(s) of Expertise" select one of the following areas:
  - Education and Experience

- Check the box to certify that the information provided is accurate and complete.

- Select the "Complete Reviewer Registration" button.

EERE ENERGY AND ENVIRONMENTAL JUSTICE ACCOMPLISHMENTS

Institutionalizing Equity in Programming

Modernizing Funding Processes:
- Integrated DEI requirements and training
- Improved Data collection
- Expanded eligible reviewers to include social science, DEI, energy justice expertise

- EERE Mission update
- Inclusion of DEI into staff performance planning option
- Equity in Programming
  - Programmatic guidance and examples for incorporating equity
  - Monthly lessons learned exchange and speaker series
- Developed EERE J40 Impact Baseline

New and Revised Programs

Inclusive Energy Innovation Prize

PHASE 1 TIMELINE

7. EERE JOINT TOPIC: COMMUNITY-DRIVEN SOLUTIONS FOR A JUST AND EQUITABLE ENERGY TRANSITION

Amount: $1,100,000
plications: YES

U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON

National Community Solar Partnership

ABC ADVANCED BUILDING CONSTRUCTION Collaborative

EcoCAR EV CHALLENGE

SOLAR ENERGY INNOVATION NETWORK
U.S. DEPARTMENT OF ENERGY

Explore the Residential Program Guide

Resources to help improve your program and reach energy efficiency targets:

- [Handbooks](#) - explain *why* and *how* to implement specific stages of a program.

- [Quick Answers](#) - provide answers and resources for common questions.

- [Proven Practices](#) posts - include lessons learned, examples, and helpful tips from successful programs.

- [Technology Solutions](#) NEW! - present resources on advanced technologies, **HVAC** & **Heat Pump Water Heaters**, including installation guidance, marketing strategies, & potential savings.

- [Health + Home Performance Infographic](#) NEW! – spark homeowner conversations.

Market Position & Business Model → Program Design & Customer Experience → Evaluation & Data Collection → Marketing & Outreach → Financing → Contractor Engagement & Workforce Development

https://rpsc.energy.gov

Health + Home Performance Infographic

DOE's new Health + Home Performance Infographic reveals the link between efficiency and health – something everyone cares about. Efficiency programs and contractors can use the question-and-answer format to discover a homeowner's needs.

The infographic is ideal for the "kitchen table" conversations where people decide what to do – and who they want to do it. It also has links for homeowners to find a qualified contractor if they do not already have one.

Download this infographic from DOE's Better Buildings Residential Network.

Thank You!

Follow us to plug into the latest Better Buildings news and updates!

Better Buildings Twitter with **#BBResNet**

Better Buildings LinkedIn

Office of Energy Efficiency and Renewable Energy Facebook

**Please send any follow-up questions
or future call topic ideas to:**
bbresidentialnetwork@ee.doe.gov